

WS-15J

June 4, 2002

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St. Paul District
St. Paul, MN 55101-1638

RE: 94-01298-IP-DLB
Draft EIS Chapter 2 Comments

Dear Mr. Whiting:

I wish to thank you for the opportunity to review and comment on the “Crandon Mine Project Environmental Impact Statement Preliminary Draft Chapter 2, Description of the Proposed Action and Alternatives”, dated April 23, 2002. A copy of these comments will also be electronically sent to Jon Ahlness of your staff.

I understand that the intent of this Environmental Impact Statement (EIS) chapter is to relay the summary of the work actions proposed by the mining company, Nicolet Minerals Company (NMC), and that NMC has had the opportunity to review and comment on this chapter prior to it being released to other parties to check for accuracy and completeness of their proposal. Statements made within this chapter reflect NMC’s plans, not the support or endorsement of the U.S. Army Corps of Engineers (COE). This chapter does not intend to address potential impacts to the project area, as impacts will be addressed in subsequent chapters of the EIS.

Though comments on Chapter 2 are provided below, EPA retains the right to further review as the EIS is developed and, as per the draft cooperative agreement, EPA fully retains its independent review responsibilities under Section 309 of the Clean Air Act (42 U.S.C. § 7609) and NEPA and its implementing regulations. EPA will retain its independent review authority of permits under federal law, including Section 404 of the Clean Water Act, 33 U.S.C. § 1344.

Chapter 2 comments:

Section 2.2, Description of the No Action Alternative:

Page 2-1: The last sentence of this section reads, “This alternative would not satisfy market demands for zinc, copper, or lead.” These demands are further defined in Section 2.3 and state

that the proposed action will “help satisfy” the market demand for the three metals. To state that the “no action” alternative will not satisfy the world market demands seems overstated since the proposed action is not meant to completely satisfy this demand. A statement in the paragraph should also be made that other mines or sources of the metals (i.e., increased recycling) would need to be found if the proposed action is not carried out.

Section 2.3.2, Overview of the Proposed Action:

Page 2-7 and Map 2-2: Will the entire proposed mine facilities area boundary be fenced or only the individual internal components of the facility (plant site, SAS, TMA)?

Page 2-7 bullets and Maps 2-1 and 2-4: Bullet #4 mentions the communication facilities including phone lines and a radio transmission tower. Map 2-1 shows the probable routing for the power line and gas pipeline, but nothing is shown within Map 2-1 or 2-4 regarding the location of the phone lines or radio tower.

Section 2.3.3.3, Power Transmission Line, Substation and Natural Gas Pipeline and Map 2-4::

Page 2-15, 2nd paragraph: This paragraph states that a new substation will be located at the plant site. Map 2-4 does not show where this power substation will be located within the plant site.

Section 2.3.3.4, Communication Facilities:

Page 2-16: This section states that the radio antenna would be incorporated into the headframe at the plant site. Was this anticipated with the aesthetics evaluation that was conducted for the headframe (Sec. 3.13 in Volume 2a of the EIR)? Will this radio tower make the headframe more visible in relation to height and with night flashers? Section 2.3.3.5.3 states that the headframe will be 160 feet above ground level, will the radio tower be higher than that or within that height?

Section 2.3.3.5, Plant Site:

Page 2-16; Bullet points: The power transfer station should be added to the list. In section 2.3.3.5.3, in the 2nd paragraph, it states that there will be a natural gas-fired heating plant. Is this heating plant to be part of the support service building or will it be located elsewhere? Map 2-4 does not show its location.

Section 2.3.3.5.7, Wastewater Storage and Treatment System:

Page 2-18; The first paragraph states that brine from the evaporation process would be pumped to a crystallizer. Nothing is said about what the crystallizer does or where the brine waste goes from there. Also, the last sentence of the 1st paragraph should read as follows: “Any water discharged to the surface would be treated to meet *water quality standards* prior to discharge”. The 2nd paragraph states that there will be four unlined runoff basins within the plant site to retain, **treat** and discharge non-contact runoff water, but then the last sentence states that the non-contact runoff would not require **treatment** in the waste water treatment system. What type of treatment will the unlined runoff basins provide?

Section 2.3.3.6; Tailings Management Area:

Page 2-18: The 2nd sentence of this section states that the TMA would serve as a long-term waste disposal site for the tailings. The term “long-term” should be replaced with “permanent”. Within the 3rd paragraph, the 2nd sentence should read, “The TMA would be designed to fully contain ~~design~~ tailings discharge volumes, *sanitary wastewater*, and the runoff volumes....”

Section 2.3.3.7; Soil Absorption System (SAS):

Page 2-19: Will the SAS be fenced off? If yes, will the whole SAS be fenced or just each individual cell?

Section 2.3.3.8; Wetlands Restoration Area:

Page 2-19: The last sentence states that the existing agricultural farmland would be returned to its pre-developed wetland condition. What type of wetland was it, and if NMC did not do anything with this farmland, what is its “No action” fate? Would it revert back to a wetland on its own?

Section 2.3.3.9; Surface Water Supplementation System:

Page 2-19: The 2nd paragraph, 1st sentence states that the SWSS would supply water based on predicted surface water changes. Actual monitoring may also indicate that the SWSS needs to add water to certain bodies of water. This section should be reworded to include monitoring in addition to predicted impacts in determining surface water bodies that may need remediation.

Section 2.3.4.1; General Construction and Development Procedures:

Page 2-20/21: The 1st paragraph (item #5) gives the impression that the full TMA will be constructed during years 0-3 and not phased in its construction as detailed in section 2.3.4.2.6. On page 2-21, the 3rd paragraph, 2nd sentence states that temporary electrical power would be provided by a 2-3 megawatt gas or propane-fired generator and a 3MW WPSC line running from Mole Lake to the plant site via the Sand Lake Road. Has this been detailed anywhere else in this chapter or in the EIR? Any impacts to the Mole Lake area or along the planned transmission pathway anticipated?

Section 2.3.4.2.1; Main Access and Internal Access Roads:

Page 2-21: The 5th sentence states that all road construction work conducted near Swamp Creek upstream of Rice Lake would be timed to avoid the floating leaf stage of wild rice growth. Are there other critical times of wild rice growth that also need to be avoided? For example, if the construction causes water levels to drop prior to harvest, crop damage may occur and harvest may be more difficult. In the 2nd paragraph of this section, on page 2-22, the last sentence states that soil and plant materials recovered from disturbed wetlands would be used to restore vegetative cover in roadside borrow areas. Does this mean that the roadside borrow areas are to be reclaimed as wetlands? Would it be better to take the wetland plants to an area where they will survive, such as to the restored area in Shawano County? More details are needed here.

Section 2.3.4.2.3; Power Transmission Line, Substation and Natural Gas Pipeline:

Page 2-22: The last sentence of the 1st paragraph states that along the mine access road, an

additional 24 feet would be needed beyond the road right-of-way. It is to be understood then that this 24 feet is in addition to the 100 feet as described as being needed for the access road corridor in Section 2.3.3.1. Section 2.3.3.1 states that the 100-foot-wide access road corridor would contain the road, all associated drainage features, and required utilities including the main electrical transmission line, natural gas line and telecommunications lines. Please clarify. Also, on page 2-23, in the 5th paragraph of this section, it states that “excavated material not suitable for backfilling, e.g., organic soils, would be disposed in upland areas” What does disposal in upland areas consist of? More detail is needed.

Section 2.3.4.2.4; Communication Facilities:

Page 2-23: More detail regarding the radio tower is needed in this section as mentioned in previous comments.

Section 2.3.4.2.5.1; Water Supply Well and Storage:

Page 2-24: the new water supply location should be marked on Figure 2-2. Will this well have any impact on private well(s) on the Menominee Tribal land just south of the plant site area?

Section 2.3.4.2.5.6; Paste Backfill Plant:

Page 2-25: According to figure 2-4, the paste backfill plant appears to be almost 1/4 mile away from the closest parts of the mine site. With the two or more dedicated large-diameter cased boreholes being drilled under the paste backfill plant and into the mine workings, is this the most feasible location for the paste backfill plant? Also, this section should discuss applicable underground injection control (UIC) regulatory issues.

Section 2.3.4.2.6; Tailings Management Area (TMA):

Page 2-25: The last sentence of the 1st paragraph seems to be pre-decisional in stating that the applicable design considerations and requirements under Chapter NR 182, Regulation of Metallic Mining Wastes, of the WAC have been addressed in siting, planning and designing the TMA. Unless the WDNR has fully approved the design and planning associated with the TMA, the words “have been” should be followed with “or will need to be” in the last sentence. On page 2-26, in the 3rd paragraph of the section, a figure showing the profile of the liners and cells would be helpful. On page 2-26, in the 4th paragraph of the section, it states that the tailings delivery and return pipelines would be aboveground. What will keep these pipes from freezing in periods of extreme cold?

Section 2.3.4.2.8; Wetlands Restoration Area:

Page 2-26: See comments regarding Section 2.3.3.8 above. Also, the proposed wetland mitigation site is out-of-kind mitigation in that it does not replace the physical structure and make up of the lost wetlands, which are predominantly deciduous or coniferous swamp. The COE needs to evaluate this issue and determine if the overall mitigation ratio is adequate. The mitigation site design is an area of concern because NMC appears to be proposing unnecessary and expensive excavation work, while actually burying an additional 11.7 acres of potentially restorable wetland. In other words, it appears that a bias for waterfowl hunting drives the

mitigation design rather than a replacement of the lost functional value of the in-kind wetlands degraded at the mine site area. The excavated soils will be stockpiled over 11.7 acres of restorable wetland immediately adjacent to the mitigation site. It appears preferable to eliminate excavation and add the 11.7 acres of restorable wetland to the credit side of the no net loss equation. Has the COE field-truthed the prior converted (PC) wetland determination by the U.S. Department of Agriculture, Natural Resources Conservation Service at the mitigation site? Once the farmland has been reverted back to a wetland, who will be monitoring this site for success and how long will monitoring be required. How long will NMC need to maintain the area as a wetland?

Section 2.3.4.3.1; Pre-Operation Mine Development:

Page 2-37: In the 4th paragraph of this section, it states that the underground fueling facility would include a 4,000-gallon diesel storage tank fed from bulk surface tanks through a borehole and pipeline. Though apparently exempt from Underground Storage Tank (UST) regulations as per 40CFR 280.12, EPA's UST Branch and the Underground Injection Control (UIC) Branch will review the design plans for this underground fuel storage tank, when available, for relevant program issues.

Section 2.3.5.2.2; Drilling and Blasting:

Page 2-46: The last sentence states that the entire explosives and blasting materials storage area would be surrounded by security fencing. Will the area also have security cameras and guards for 24 hour protection?

Section 2.3.5.3.2; Mine Dewatering and Mine Water Handling:

Page 2-47: The 1st paragraph states that the average groundwater inflow rate over the mine life is projected at approximately 450 gpm, based on groundwater modeling. The COE should provide the projected range of gpm values, at least until the modeling is completed by the WDNR and the COE. Similarly, the last sentence of the 1st paragraph should state that the mining company has guaranteed that the 600 gpm 30-day rolling average would not be exceeded. (A thorough explanation of the 30-day rolling average approach should be provided.) Contingencies if the 600 gpm with rolling 30 day average is exceeded should be listed in this section. A range of anticipated gpm should be reported.

Section 2.3.5.5; Paste Backfilling Operations:

Page 2-57: The paste backfilling via dedicated boreholes may be a regulatory issue under the UIC program. EPA's UIC Branch will be reviewing the proposal designs when available.

Section 2.3.5.7; Rail Spur Line Operations:

Page 2-58: This section states that an average of 2 rail cars per day containing consumables would be moved from the rail siding to the plant site. More detail is needed as to what these "consumables" are (are these the chemicals listed in Table 2-8?) and how they are being stored (i.e., spill prevention provisions, etc.)

Section 2.3.5.8; SAS Operations:

Page 2-58: EPA UIC Branch will be reviewing this portion of the project for UIC regulatory concerns. They will work with the WDNR on this issue.

Section 2.3.5.9; Surface Water Supplementation System:

Page 2-58: In the 2nd sentence of the 1st paragraph, MMMF needs to be defined. Also, in the 2nd to last sentence of this paragraph, more explanation is needed to explain why ice cover on Rolling Stone Lake would trigger supplementation until the ice cover is gone. In the 2nd paragraph, MMMS needs to be defined.

Section 2.3.5.10; Maintenance Practices and Procedures:

Page 2-61: The 1st bullet states that snow removal and de-icing will be occurring on the roads within the facility. Will the de-icing include salt, sand or other de-icing compounds? What will the policy of NMC regarding salting or applying de-icer on the roads near/over Swamp Creek or other water bodies? With regard to brush control, will herbicides be used anywhere within the project area? What type of surfactants would be considered by NMC? Would they be used on roads adjacent to waterways?

Section 2.3.6.1; General Closure and Reclamation Procedures:

Pages 2-62-64: This section and Table 2-3, do not seem to address the restoration of on-site wetlands that may have been partially destroyed by plant operations such as road construction or the SAS. All of the proposed final uses appear to be for forestry/recreation, green space or agriculture and not involve wetland restoration on-site.

Section 2.3.6.5.1; Underground Mine Workings and Mine Surface Facilities:

Page 2-65: The 2nd paragraph states that, "All equipment in the mine would either be removed from the mine and salvaged or left in-place," Why would any equipment be left in place instead of at the least, recycled for its metal content? It seems contradictory to be mining for metals, zinc and copper, and yet easily leave pieces of equipment abandoned in the mine. All wiring, equipment, pipes should be removed and either recycled or disposed of properly. The end of the 2nd paragraph states that the shafts would be plugged and the upper portion of the shafts would be backfilled with select, non-acid-forming material. The EIS should explain why the entire shaft (and paste backfill boreholes as per section 2.3.6.5.3) is not backfilled and if it is not all backfilled, what the impacts could be, including creating preferential pathways for contaminants to travel.

Section 2.3.6.5.3: Ore Processing Facility and Paste Backfill Plant:

Page 2-66: See comment above for 2.3.6.5.1 regarding plugging of the boreholes (same comment as regarding the plugging of the mine shafts).

Section 2.3.6.7; Soil Absorption System (SAS):

Page 2-67: The 2nd bullet states that the distribution piping will be buried in place but the 4th bullet states that the removal and off-site disposal of distribution lines and geo-textile will occur.

This area should be restored to as complete original condition as possible, so all the piping should be removed.

Section 2.3.6.8; Wetlands Restoration Area:

Page 2-67: This section states that no maintenance or reclamation following initial re-establishment will be required. Won't NMC be required to maintain the weir structures, and regulate flows over time? Is it anticipated that NMC may need to dredge the pool areas periodically to keep these areas as open water?

Section 2.3.7; Long-term Care, Monitoring, and Maintenance:

Page 2-68: The 1st sentence of the 4th paragraph of this section states that no use of the TMA area would be permitted during the 40-year, long-term care period. This section should also state the possibilities that the restrictions of use for the TMA area could be continued permanently and that perpetual pump and treat is a possibility if groundwater contamination warrants it.

Section 2.3.8.5; Land Disturbance:

Page 2-79/80: The 2nd to last sentence in the 2nd paragraph states that through year 31, an estimated 179 acres of the TMA would be reclaimed and revegetated. The term "reclaimed" seems to be somewhat of a misnomer in that the TMA will not be usable for anything but open space. Table 2-13 indicates that 0 acres of the TMA will be permanently disturbed when in reality, the entire TMA will need to be monitored for many years and should be considered permanently disturbed. Other areas marked as 0 in Table 2-13 under the Land Area Permanently Disturbed column (i.e., SAS, Plant Site, etc) need to be reconsidered with respect to pipelines being left in place, foundations below the 1-foot level being left in place, etc., as commented on earlier. These areas may be covered with vegetation, but the areas have not been fully reclaimed and portions of these areas will therefore remain "disturbed". The change in the elevation of the TMA area should also be considered a permanent disturbance, as is the impermeable liner beneath the surface.

Section 2.3.8.6; Surface and Underground Equipment Noise Levels and Air Emissions:

Page 2-80: This section should state that Appendix A will include air monitoring details.

Section 2.3.8.7; Projected Development, Operation, Reclamation, and Long-Term Care Costs:

Page 2-85: This section needs to include financial security and bonding costs. As is, these issues are only included in Section 2.6.12 under Miscellaneous.

Section 2.4; Description of the Project Reduction Alternative:

Page 2-85: The 3rd paragraph needs some clarification, as the decision to build only TMA Cell 1 would depend on the timing of the decision to not mine the copper. Also, it should be made clear in this section that a project reduction scenario may only be a temporary decision, in that the mining company could reverse its decision to not mine the copper if it becomes economically viable to do so. If the project reduction alternative is what is permitted, would the mining company have to reapply for a permit to mine the copper? Also, a section should be added in

this alternatives section regarding the alternatives to meet the zinc and copper demands, such as increased production at other locations and increased recycling, and including the pros and cons of these alternatives.

Sections 2.5.1; Railroad Spur Line Route B; Section 2.5.2; Power Transmission Line Corridor North B; and Section 2.5.3; Soil Absorption System Site E:

Page 2-88: These sections should list the pros and cons of the alternatives over the chosen alternatives.

Section 2.6.2; Water Quality:

Page 2-96: In light of the recent court decisions, the water quality standards of the Sokaogon Chippewa Community should also be discussed in this section. Discharges from the project should comply with applicable water quality standards established pursuant to 33 U.S.C. 1313 and should not violate water quality standards established by downstream states (or tribes treated as a state under the Clean Water Act). (33 U.S.C. § 1341).

Section 2.6.4; Restoration:

Page 2-97: The 1st paragraph states that non-indigenous plant species may be used if necessary and if determined to be acceptable by the responsible regulatory agency. The mining company should make every attempt to utilize indigenous plant species and if non-indigenous species are used, will the mining company replant these areas with indigenous plants over time? The responsible regulatory agency should be identified.

Section 2.6.5; Air Quality:

Page 2-98: Eliminate the words "to the extent feasible" from the first sentence. Add a sentence to this section that all air emissions will be in compliance with the Clean Air Act.

Section 2.6.6; Noise:

Page 2-99: The section states that the TMA construction will be limited to daytime hours. Does this mean in the summer construction will occur from sunrise to sunset or regular "daytime" work hours of 9am-5pm? During the summer, noise disturbance could potentially start at around 6am and continue to nearly 9pm. Hours should be specified.

Section 2.6.9; Handling and Disposal of Mine Wastes, and Toxic or Hazardous Materials:

Page 2-100: Is the underground diesel fuel tank considered a storage tank as mentioned in the 2nd sentence? If not, it needs to be mentioned separately in this section.

Section 2.6.10; Health and Safety:

Page 2-101: This section should include the health and safety issues of public interest as well as the issues regarding the on-site workers. Local public will have concerns (i.e., hazardous material transportation, radiation concerns, etc.) and the mining company should address these concerns in this section and in periodic public meetings.

Section 2.6.12; Miscellaneous:

Page 2-103: The 1st paragraph states that the mining company will implement a plan involving goblin fern habitat protection and that it “may” include transplanting goblin ferns. When will this plan be developed and what is the alternative if the plants are not transplanted? The 4th paragraph should also cover groundwater wells that may be damaged due to contamination from mine activities and not just drawdown issues. The 5th paragraph states that NMC will establish and maintain bonding or other financial security methods guaranteeing the availability of sufficient funds for the closure, reclamation, and long-term care of the mine site and all related facilities. This is a very important part of the mine project and needs its own in-depth section and not just be a part of the miscellaneous section.

Section 2.7.2.7; Replacement of Sodium Cyanide in Processing:

Page 2-107: This section should state that this issue may be revisited depending on the outcome of the proposed cyanide ban regulation in Wisconsin.

Sections 2.8 - 2.9:

These sections were not yet completed so no comments are provided.

Thank you for the opportunity to review this document and to provide comments to you. Further input regarding Chapter 2 may be forthcoming depending on responses to the comments above and on future reviews of COE draft and final documents. If you have any questions on the above, please give me a call at 312-886-7252.

Sincerely,

Daniel J. Cozza, Crandon Mine Project Manager
U.S. Environmental Protection Agency

cc:

Jon Ahlness, COE
Gordon Reid, NMC
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